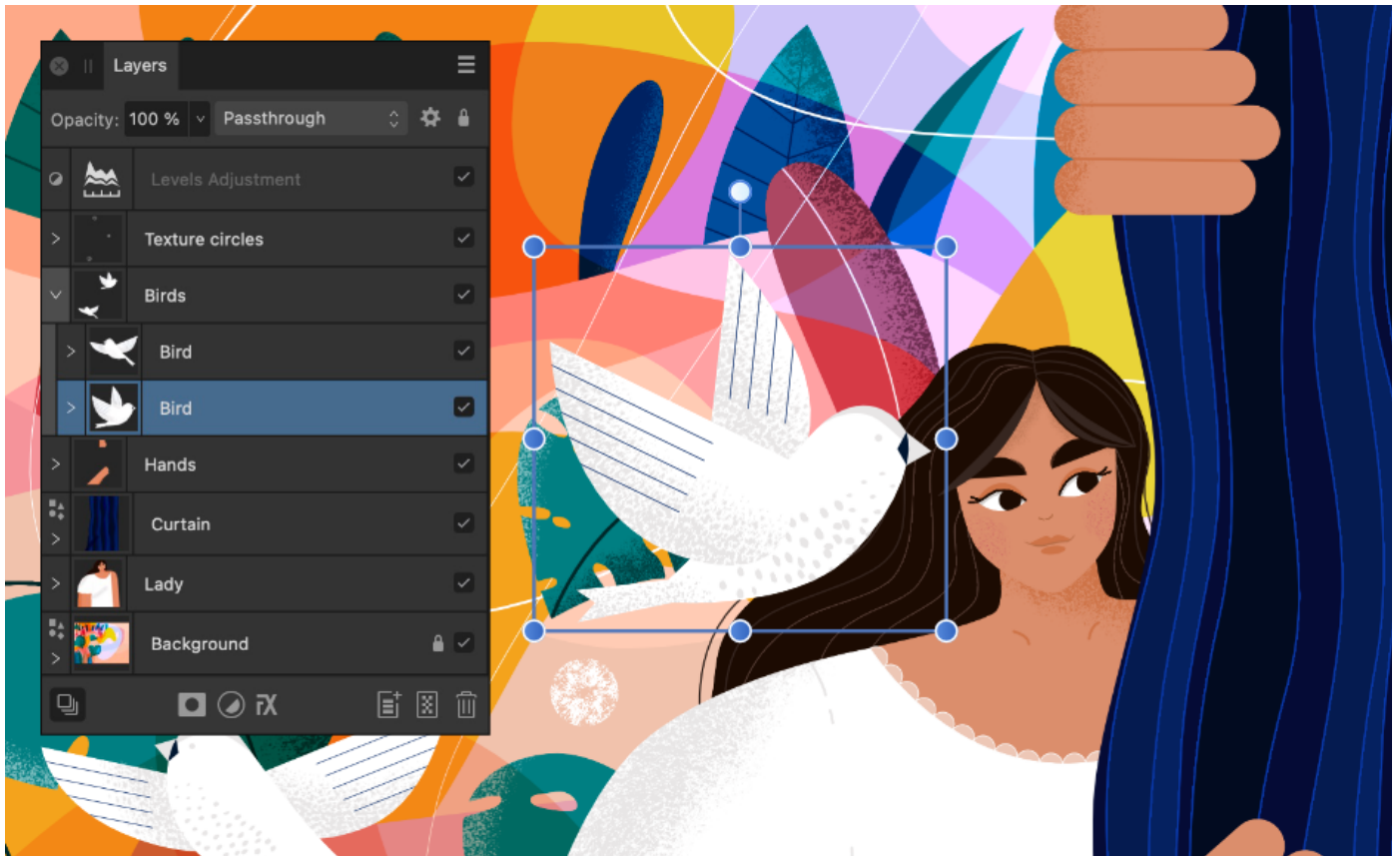


Layer

1. About Layers	2
2. Create Layers	4
3. Layer Drop Zones	6
4. Selecting And Editing Layers	9
5. Arrange Manage Layers	11
6. Layer Opacity	13
7. Layer Blending	15
8. Layer Blend Ranges	27
9. Image Layers	32
10. Layer Clipping	34
11. Layer Masking	37
12. Using Adjustment Layers	43
13. Tagging Layers	48
14. Layer Colors	50
15. Live Mesh Warp	51
16. Live Perspective	55

About layers

Layers let you organize the contents of your design into a logical tiered structure for better creative composition and object management.



What are layers?

You can think of each layer as being like an individual drawer in a clothes chest of drawers. Within that drawer you place shirts or blouses that are stacked on top of each other. In layer management, these clothes items are our individual vector objects, sometimes overlapped, sometimes not. Using our analogy, if your chest of drawers was see-through and you looked directly down from above it, you would see the topmost drawer contents in the foreground, the bottom contents in the background, and all other contents ordered in between.

All layer management is carried out from the Layers panel.

Here are some important points regarding layers:

- The order of your layers is important. A layer at the *top* of the panel is shown in the *foreground* of your document view, with the lowest layer in the background.
- Any selected layer(s) are highlighted, so that you can always see what layer you are working on.
- You can create child layers, which are nested under a parent layer. Child layers are perfect for use as an extra level of object organization in more complex documents.
- Any layer can be hidden, to exclude its layer objects from displaying in your design.

Layer types

There are several types of layers that can be created; these are identified in the Layers panel with a unique icon, shown at the beginning of the layer entry.

Panel icon	Description
	Artboard—discrete design areas that can be sized to different page or mobile device sizes.
	Vector—used for placing vector objects into.
	Pixel —used for pixel-based editing (Pixel Persona).
	Shape—for geometric shapes created with shape tools.
	Compound—for non-destructive compound shapes created by Boolean operations.
	Curve—for open curves and closed shapes drawn with Pen Tool or Pencil Tool.
	Artistic Text—for scalable text.
	Frame Text—for story text contained within a frame.
	Path Text—for text that follows an open curve or a shape's outline.
	Shape Text—for text contained within a shape.
	Empty group—an empty group container for containing multiple objects as a single object.
	Mask —defines what content is hidden to reveal layers beneath.
	Image —self-contained placed images that retain the original image data including the color profile.
	Linked/Embedded document—placed non-native documents (such as PDF, PSD, SVG, EPS) and native Affinity documents (afphoto, afdesign and afpub) files.
	Adjustment —used to correct or enhance a specific object, group, layer or the whole layer stack non-destructively.
	Symbol—the symbolized object shares its properties with other symbolized objects so edits across objects are simultaneous.

SEE ALSO:

[Create layers](#)

[Selecting and editing layers](#)

[Using layer masks](#)

[Using adjustment layers](#)

[Layer effects](#)

[Layers panel](#)

Create layers

Affinity Designer lets you create and manage layers using the Layers panel.

Both vector and pixel layers can be created in the Layers panel that can be used to place objects or lay down pixels in your design. Multiple 'stacked' layers present layer objects or pixels in a logical, ordered and managed manner.

In addition, a child layer of any currently selected layer can be created. Use child layers for more complex multi-object designs where storing related objects in child layers under the parent layer might help object management further. Also use them to restrict adjustments and effects to the child layer only, instead of an entire layer.

Layers or child layers are created above or inside the currently selected layer, respectively.

As well as vector layers, you can create pixel layers when using pixel-based tools. Some tools and effects can only be applied to pixel layers. In many instances, the layer is created automatically by the tool that you are using or by the Assistant if the option is turned on.

▼ To create a new layer:

- From the **Layers** panel, click **Add Layer**.

The layer will be placed at the top of your layer stack.

▼ To create a child layer:

- From the **Layers** panel, drag one layer over another layer to make it a child layer.

▼ To create a layer for selected objects:

Do one of the following:

- On the **Layers** panel, **Alt**-click **Add Layer**.
- **Right**-click the selected object and choose **Move Selection to New Layer**.

▼ To create a new pixel layer:

Do one of the following:

-  With the **Pixel Persona** active, paint with the **Paint Brush Tool** or **Pixel Tool**. The new pixel layer will contain the brush stroke.
-  From the **Layers** panel, click **Add Pixel Layer**. The layer will be placed directly above any selected layer or at the top of your layer stack if no layer is selected.

▼ To rename a layer do one of the following:

- Double-click the layer's label and type a new name.
- On the top menu, click **Layer** and then select **Rename Layer**.

▼ To rename layers sequentially:

1. Select a layer in the stack and start renaming as described above.
2. Use the **Tab** and **Shift+Tab** keyboard shortcuts to switch between layers.
3. Enter a new layer name when ready.

The **Tab** will take you to the layer lower down the stack, whereas **Shift+Tab** switches to the layer higher up.

You can enable **Ask for name when creating Layers and Groups** setting to be prompted to name them upon creation. This is found in the **Settings (or Preferences)>User Interface** section.

▼ To duplicate a layer within the same document:

Do one of the following:

- With the **Move Tool** enabled, **⌘**-drag the selected object on the page.
- **Alt**-drag the selected layer up or down in the layer stack.
- With a layer pre-selected, from the **Layer** menu, select **Duplicate**.
- With a layer pre-selected, from the **Edit** menu, select **Copy**, then **Paste**.

The latter can also be performed between documents.

 You can also copy and paste selections and layer groups using the **Edit>Copy** and **Edit>Paste** method. If you copy a layer group, all layers within the group will be duplicated.

 You can duplicate an object to another 'floating' document by dragging and dropping its layer onto the target's document view.

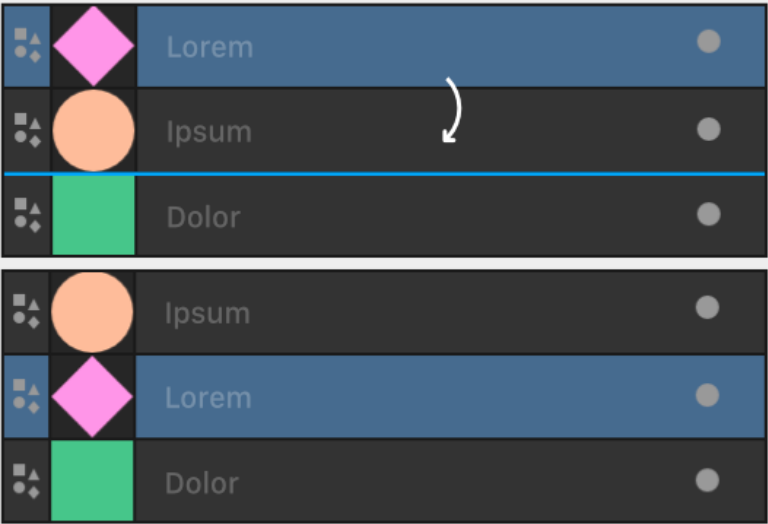
Layer drop zones

Layer drop zones indicate suggested positions in your layer stack that a currently moved object or layer can be dropped.

About layer drop zones

Objects or layers in your Layers panel can be a simple arrangement of only a few objects or layers stacked together in front to back order (from the top to the bottom of stack). Any can be reordered in relation to others by moving them up or down. However, for layer operations such as clipping or masking it's useful to understand the type of drop zones possible and where these appear in the Layers panel.

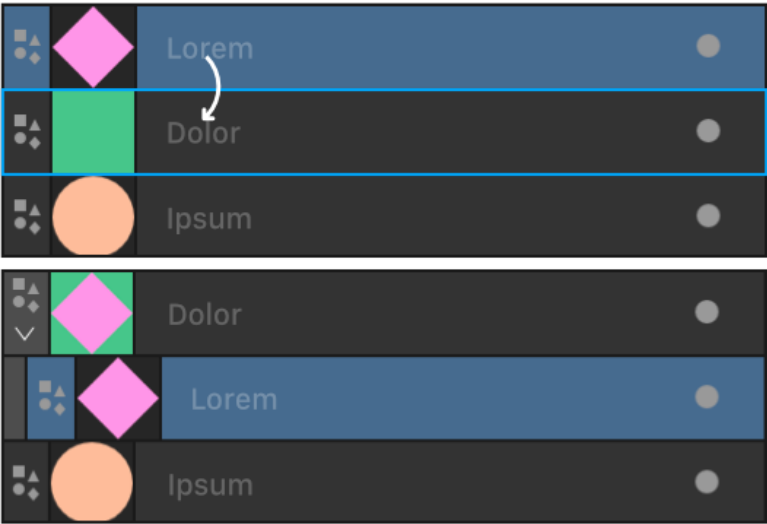
Clipping involves dragging one object or layer inside another so the clipped object (layer) is contained within the outline of the clipping object (layer). This creates a parent - child layer relationship, i.e. a two 'level' arrangement.

Action	How to	Visual
Change order	by dragging to a position between two objects (layers).	

Clipping
(making a child
layer)

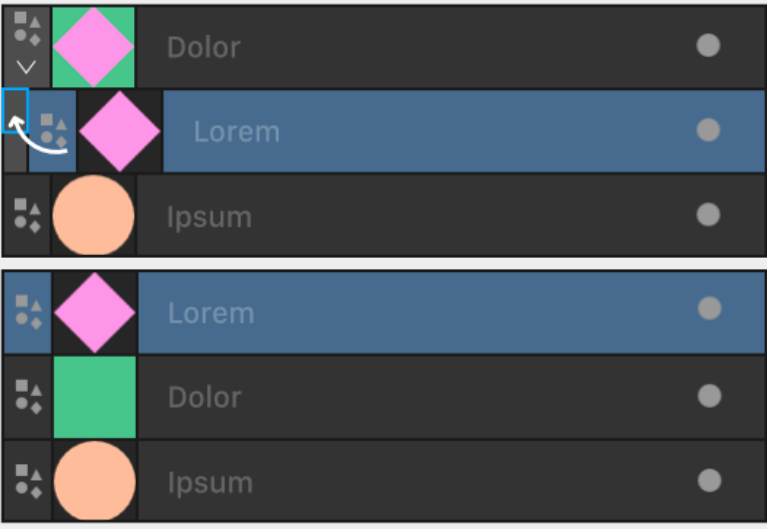
by dragging onto another
object's (layer's) name.

Layer drop zones



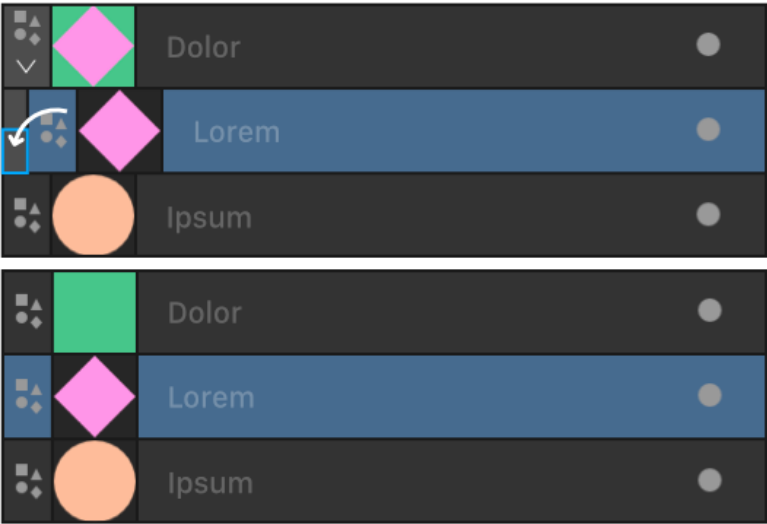
Return above
parent

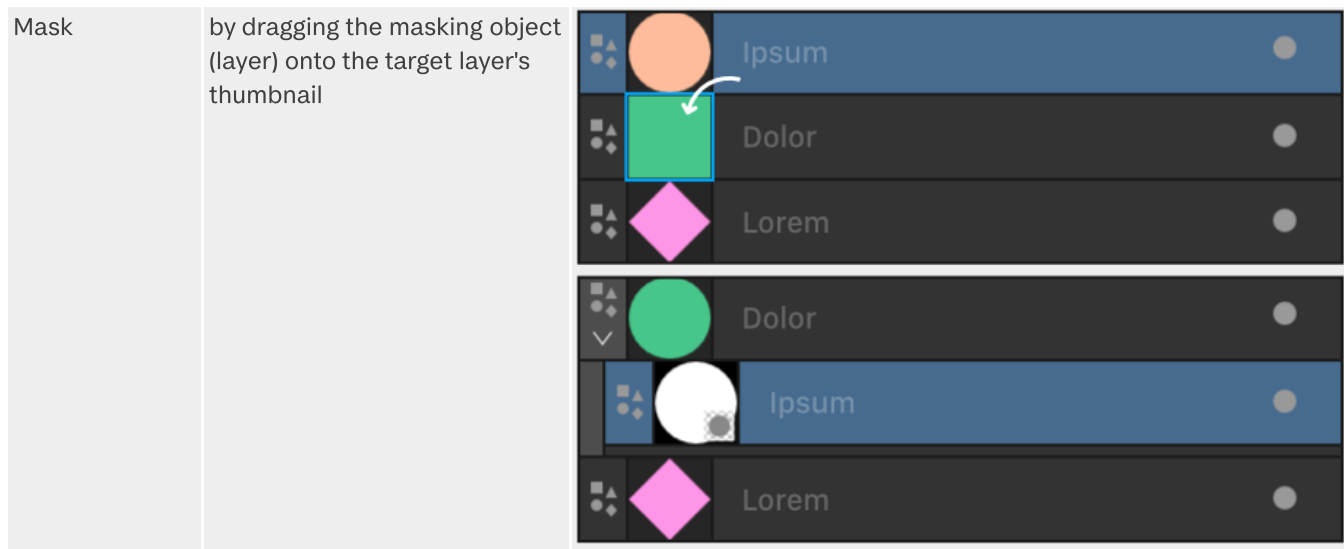
by dragging a clipped object
(layer) to above its Parent Bar.
You can drag to a Grandparent
Bar, Great Grandparent Bar,
etc.



Return below
parent

by dragging a clipped object
(layer) to below its Parent Bar.
You can drag to a Grandparent
Bar, Great Grandparent Bar,
etc.





SEE ALSO:

[About layers](#)

[Ordering](#)

[Layer clipping](#)

[Layer masks](#)

Selecting and editing layers

Selecting and editing layers (and layer objects) are essential operations when working with multi-layered documents. Layers can also be renamed for easy identification or given a tag color to differentiate objects by whatever meaning you wish.

▼ To select a layer:

- On the **Layers** panel, click the layer name. This displays all layer objects as one selection in your workspace.

▼ To select a specific layer object:

1. On the **Layers** panel, expand the layer to show its contents by clicking the layer's arrow.
2. Double-click the layer object's thumbnail. The zoom will fit to display the chosen object.

▼ To select multiple layers (or layer objects):

- On the **Layers** panel, **Ctrl**-click each layer (or layer object).

▼ To rename a layer:

Do one of the following:

- Double-click the layer's label and type a new name.
- On the **Layer** menu, select **Rename Layer**.

▼ To rename layers sequentially:

1. Select a layer in the stack and start renaming as described above.
2. Use the **Tab** and **ShiftTab** keyboard shortcuts to switch between layers.
3. Enter a new layer name when ready.

The **Tab** will take you to the layer lower down the stack, whereas **ShiftTab** switches to the layer higher up.

▼ To change a layer's tag color:

- With a layer (or multiple layers) selected, on the **Layers** panel, **Right**-click and select a new color swatch from the pop-up menu.

▼ To select all layers sharing the same name:

- With a layer selected, on the **Layers** panel, **Right**-click and choose **Select Same Name** from the pop-up menu.

▼ To select all layers sharing a tag color:

- With a layer selected, on the **Layers** panel, **Right**-click and choose **Select Same Tag Color** from the pop-up menu.

SEE ALSO:

[About layers](#)

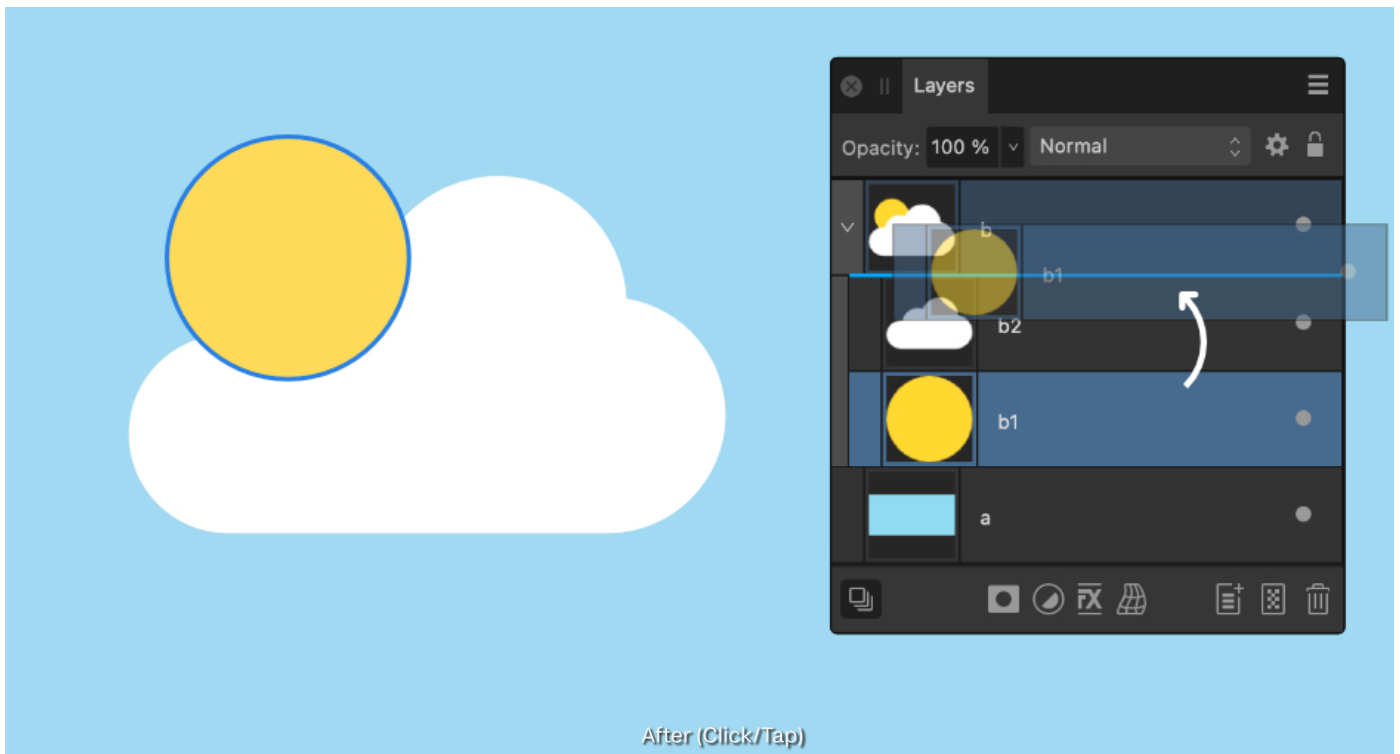
[Create layers](#)

[Arrange/manage layers](#)

[Tagging layers](#)

Arrange/manage layers

Arrange and manage layer operations let you show/hide, reorder, duplicate, or lock layers.



Reordering an object in the Layers panel

Show or hide layers to include/exclude layers (and layer objects) in your document and any output. You can also hide/show a selection of layers in one operation, as well as all other layers apart from any currently selected layers.

Any layer can also be reordered in the layer stack to change layer object ordering, or duplicated to improve efficiency. Locking prevents a layer or layer objects from being moved, resized, flipped or rotated (but still remains editable).

▼ To hide or show a layer:

- On the **Layers** panel, disable or enable **Toggle Visibility** on the layer entry.

 Hidden layers will not print or export.

▼ To hide or show selected layers in one operation:

- On the **Layers** panel, select multiple layers using **Shift**-click or **Ctrl**-click.
- Click on the **Toggle Visibility** icon on any of the selected layers.

▼ To show all hidden layers:

- On the **Layer** menu, select **Show All**.

 If a hidden layer(s) is selected before Show All is applied, only that layer will be displayed, instead of all layers.

▼ To hide or show all other layers (except selected):

- On the **Layers** panel, do one of the following:

-  **Right-click Toggle Visibility**, and select **Hide Others** or **Show Others** from the pop-up menu. For multiple selected layers, any of the selected layers can be targeted.
- **Right-click** a layer and select the same options from the pop-up menu.

▼ To reorder layers:

Do one of the following:

- Drag a layer entry up/down the layer stack. When you see a blue line between two layers, drop the layer to place.
If you pause during the drag procedure, you'll see a preview on the page for the current operation.
- When a layer is selected, click the **Move to Back**, **Back One**, **Forward One** or **Move to Front** button on the top toolbar.
Using these buttons, child layers can only be reordered within their parent layer.

 When you move a layer, the content of the layer moves with it.

▼ To duplicate a layer:

1. In the **Layers** panel, select a layer.
2. In the **Edit** menu, select **Duplicate**.

The duplicate layer is added above the selected layer.

▼ To lock a layer (or layer object):

1. On the **Layers** panel, select the layer(s) or object(s) to be locked.
2. Do one of the following:
 - Select **Lock/Unlock**.
 - From the **Layer** menu, select **Lock**.

Select **Lock/Unlock** again or use the **Layer** menu's **Unlock** item, to allow the layer contents or object to be transformed again.

 To quickly lock an individual layer or object, position the cursor to the left of its visibility button on the Layers panel and click the lock icon that appears.

 Layers or objects which are locked show in the Layers panel with a lock symbol, , next to them. Selected locked layers appear with crosses around the bounding box.

▼ To unlock all layers (or layer objects):

- From the **Layer** menu, select **Unlock All**.

 If any locked layer(s) is selected before Unlock All is applied, only that layer will be unlocked, instead of all layers.

SEE ALSO:

[Selecting and editing layers](#)

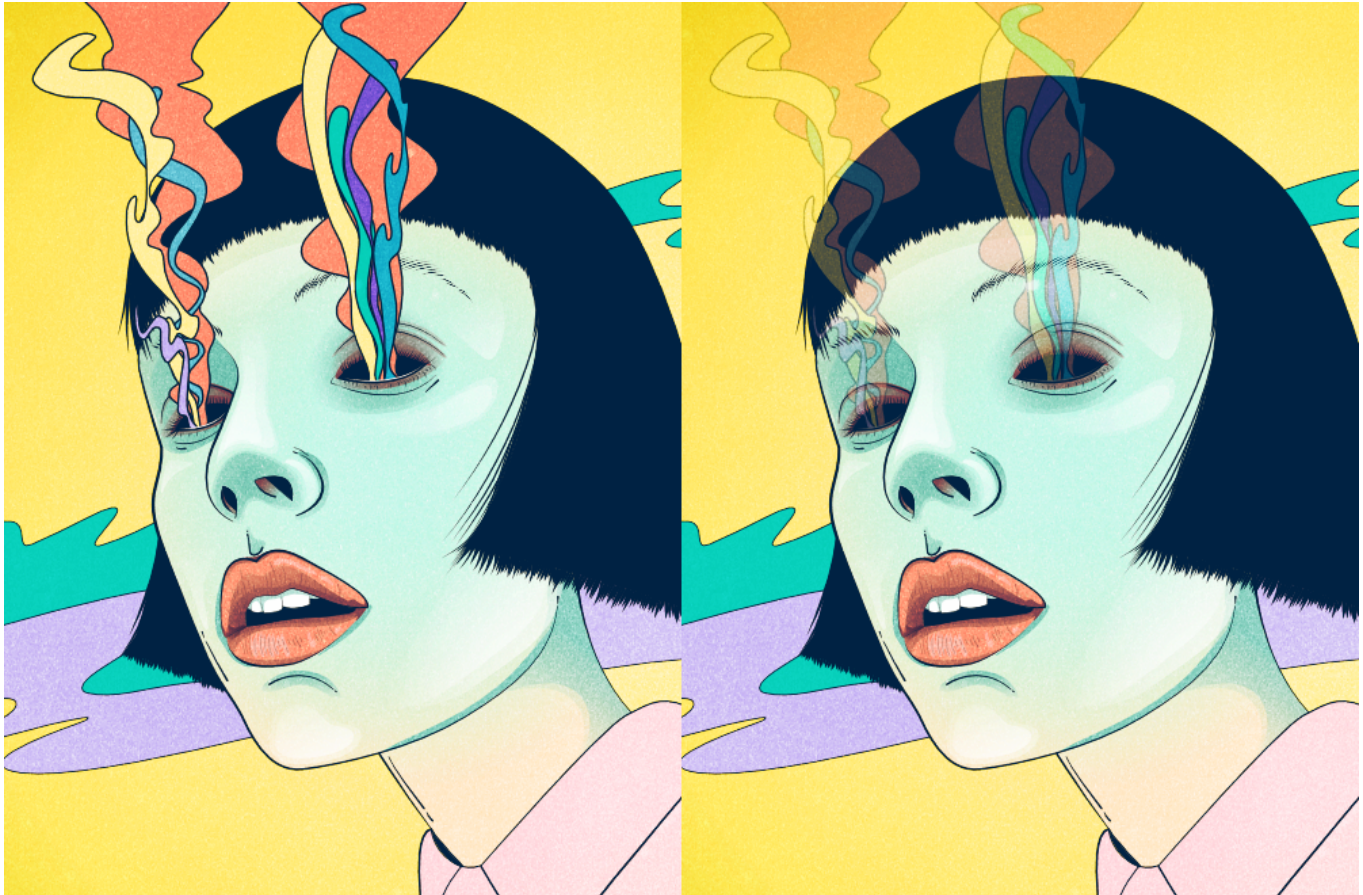
[Create layers](#)

[Using layer masks](#)

[Using adjustment layers](#)

Layer opacity

A layer's opacity determines how see-through a layer is and how much of the layer beneath is obscured or revealed. At 1% opacity, the layer is almost transparent, whereas at 100% the layer is completely opaque.



Numerical keys can be used to quickly set the opacity of selected layers.

 Different levels of opacity can also be applied at different points along a fill or transparency path, or to brush strokes and object fills.

▼ To change the opacity of a layer:

1. From the **Layers** panel, select one or more layers.
2. Use the **Opacity** control to set an opacity value.

 To quickly select an opacity value, drag left or right over the panel's **Opacity** label.

▼ To use opacity quick keys:

1. Select a single layer or multiple layers.
 2. Press a numerical key, or two numerical keys in quick succession, to set the opacity. For example:
 - Press **4** for 40% opacity.
 - Press **0** for 100% opacity.
 - Press **4** and **5** for 45% opacity.
 - Press **0** and **7** for 7% opacity.
-

SEE ALSO:

[About layers](#)

[Transparency](#)

Layer blending

A layer's blend mode determines how the layer or object's pixels blend with the pixels on the layer beneath.



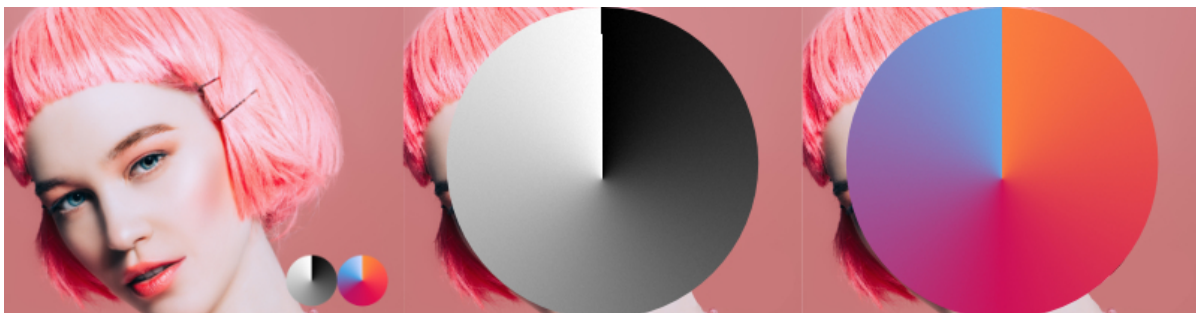
Common blend modes: (A) Normal, (B) Multiply, (C) Screen, (D) Overlay, (E) Divide (F) Color Burn.

Blend mode types

Affinity apps support an impressive selection of different blend modes. They are organized in their respective groups, which initially inform of the effect they add. They are as follows:

▼ Normal

The default and starting mode for layers. It results in fully opaque pixels appearing above the underlying pixels. Use to completely cover the underlying layer's content.



▼ DARKEN GROUP

▼ Darken

Compares pixels of the active vs the underlying layer(s) and leaves darker pixels visible. Use to create dramatic, moody atmosphere.



▼ Multiply

One of the most frequently used blend modes in the group. Each pixel of the active layer is multiplied with the pixels of the layer(s) below. Bright pixels are ignored while darker ones are intensified. This results in a darker overall output when compared to the Darken blend mode. Use to create darker outputs with increased contrast.



▼ Color Burn

Results in more saturated mid-tones and reduced highlights by intensifying contrast and the underlying layer's colors. Use to exaggerate colors and create highly contrasting scenes.

 Color Burn isn't available in LAB16 mode.



▼ Linear Burn

Results in darker output than with Multiply blend mode, yet less saturated than Color Burn. Lighter pixels of the active layer(s) are unaffected. This mode is ideal for rendering darker tones in the shadows and mid-tones.



▼ Darken Color

Compares the color values of the active and underlying layer(s) and only retains the darker ones. Use to accentuate the darker tones from both layers.

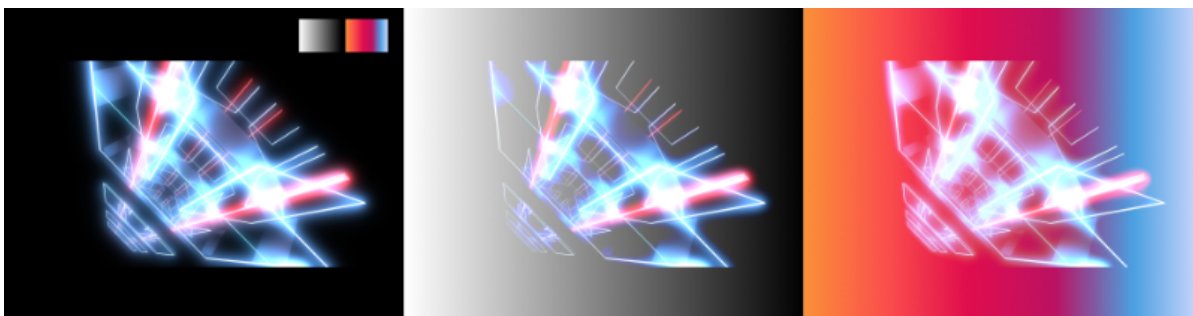


▼ LIGHTEN GROUP

 The Lighten group blend modes are preferred for blending images with a dark background where the intended outcome is to reduce or remove it completely.

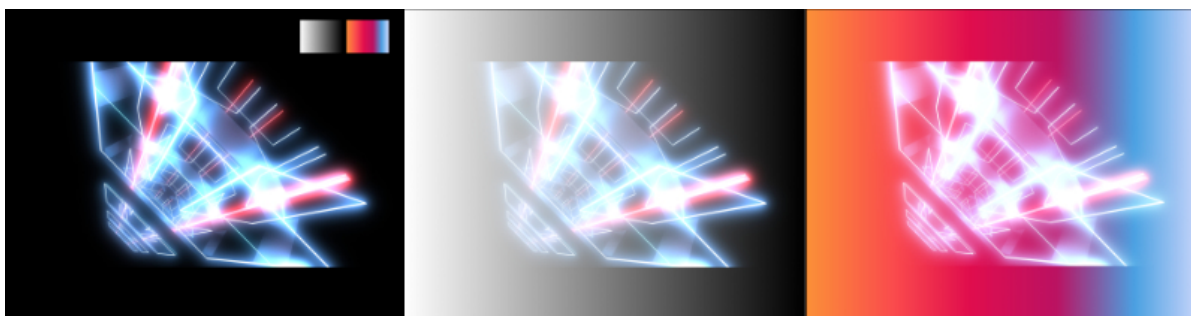
▼ Lighten

Results in only the brighter values being retained upon comparing the active and underlying layer(s). Use to add complimentary color tint to images.



▼ Screen

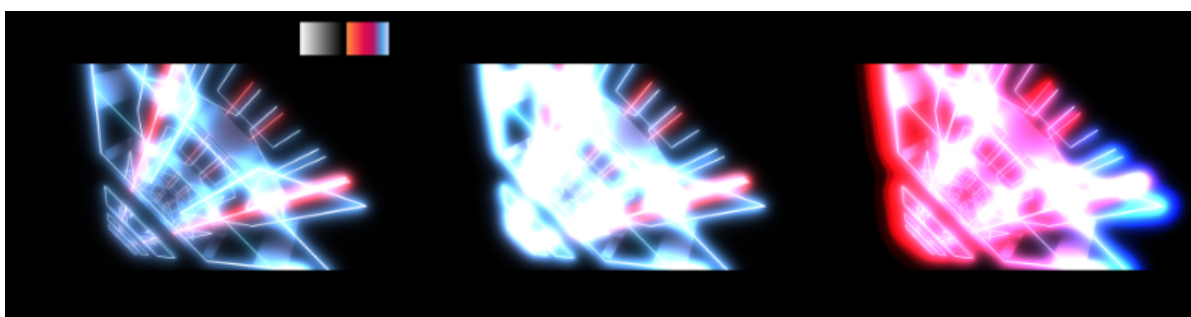
Inverts colors of the underlying layer(s) and multiplies it with those of the active layer: this results in generating smooth results. It is one of the most commonly used blend modes due to its soft rendering.



▼ Color Dodge

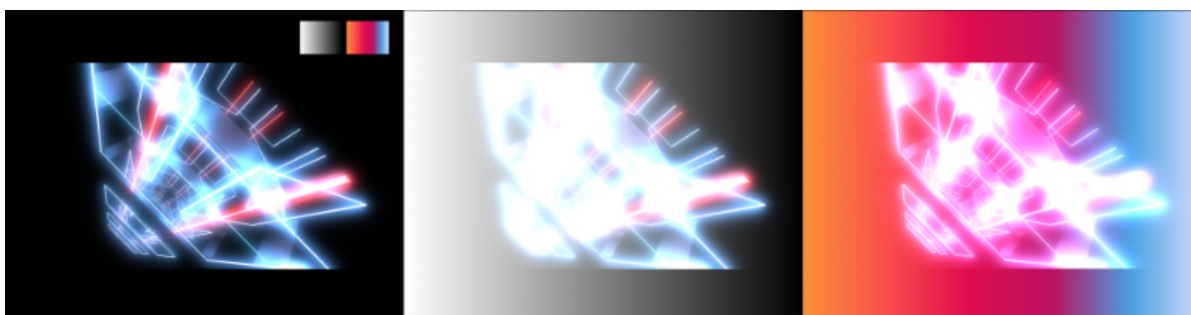
Increases the luminosity of the underlying layer(s) while reducing contrast between both the active and underlying layer(s). It results in a stronger effect than the one produced by Screen with saturated mid-tones and intense highlights. Use to accentuate color and highlights.

 Color Dodge isn't available in LAB16 mode.



▼ Add

Results in added color information to both the active and underlying layer(s) and increases overall brightness while not affecting the black tones. Use to reveal brighter tones in images.



▼ Lighter Color

Rather than looking at individual color, this mode uses perceived luminosity from all color channels to determine which pixel is lighter. It acts as an inverted luminosity mask. Use for faded looks and smooth rendition of highlights in outputs.



▼ CONTRAST GROUP

▼ Overlay

Compares the active and underlying layer(s) and shifts to darker mid-tones if the colors are lighter than 50% gray. Results in darkening the darker pixels of the images and lightening the lighter ones. Use to enhance contrast and saturation.



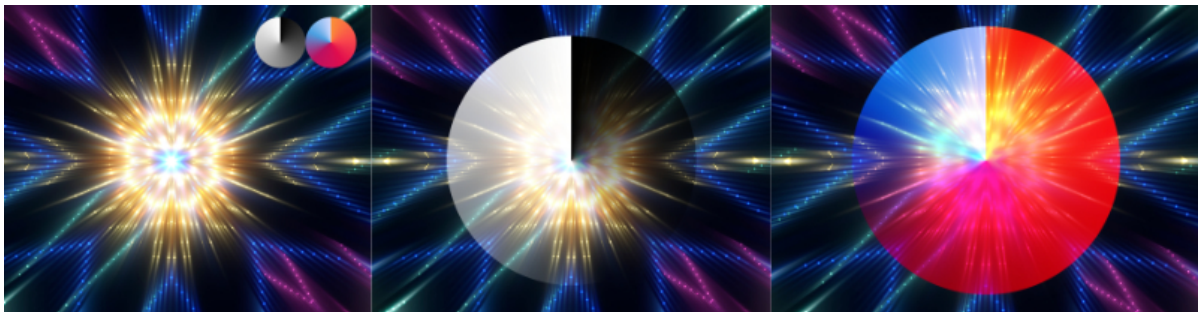
▼ Soft Light

Results in a more diffused effect from comparing luminance and color values between the active and underlying layer(s). Use for subtle blending and faded looks.



▼ Hard Light

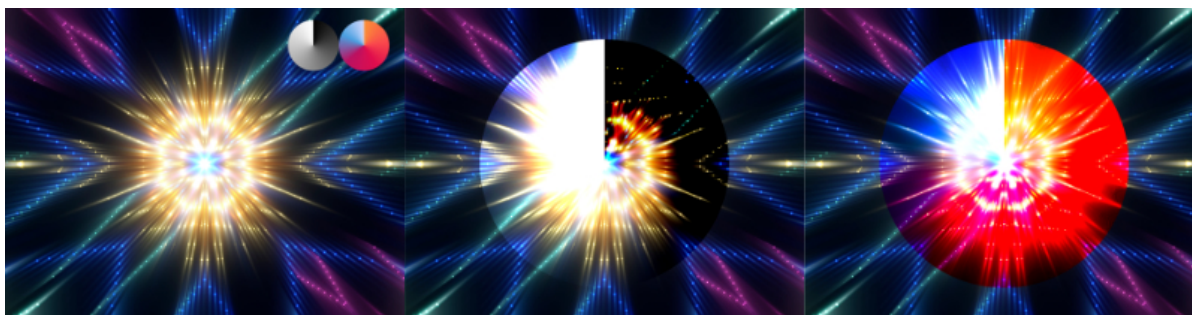
Results in a dramatic, high-contrast effect. The top layer is used to determine the calculation required for the evaluation of pixels. Its effect can be observed as the opposite of the Overlay blend mode. Use to enhance color contrast and reduce opacity, as required, to achieve best results.



▼ Vivid Light

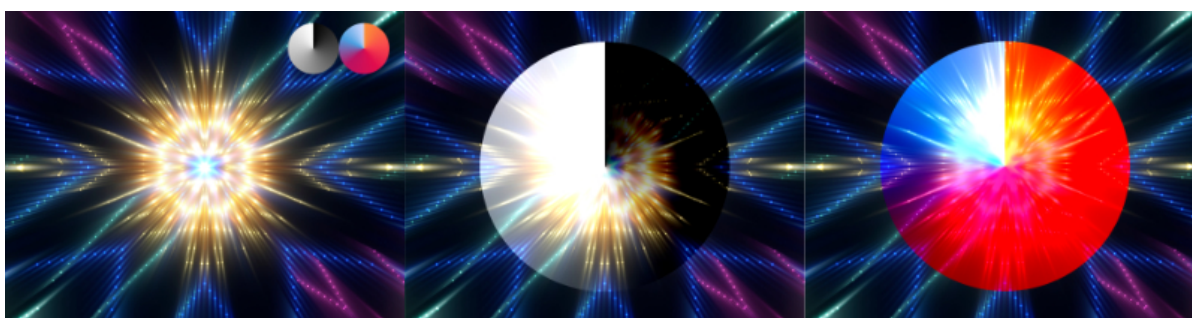
This blend mode applies the effect of the Color Burn or Color Dodge blend mode based on the comparison of RGB channels in the active (top) layer and underlying layer(s). Color Dodge is applied when the top layer image's values are lighter than mid-gray; Color Burn is applied when the top layer image's values are darker than mid-gray. Mid-gray serves as a neutral color, so any pixels with a gray value of 50% are not affected.

Results in increased contrast and highly saturated colors. Use to enhance contrast and color intensity, though best results are achieved with reduced opacity.



▼ Linear Light

Brighter pixels receive lighter treatment while darker ones get darkened. Results in a stronger contrast in the mid-tones. Use to create a dramatic, enhanced effect.



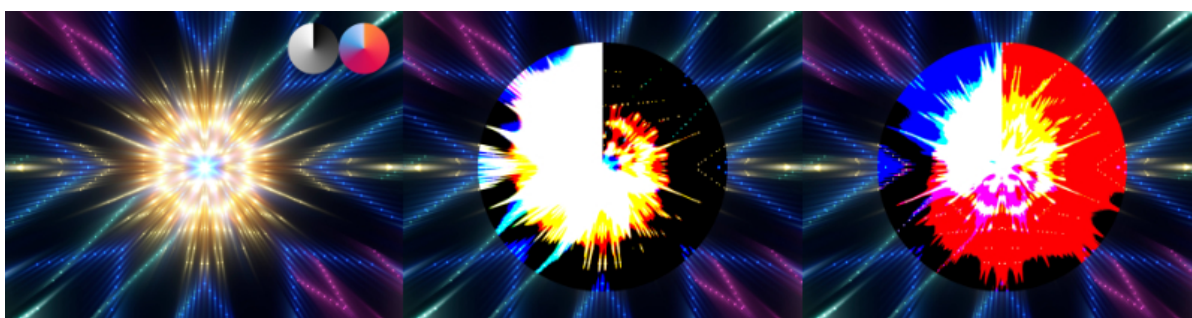
▼ Pin Light

Results can be compared to a mix of those achieved with the Darken and Lighten blend modes. This blend mode creates distinct boundaries between the dark and light regions. Use to achieve pronounced, yet somewhat faded look.



▼ Hard Mix

Results in a highly-contrasting effect between pixels (modified by either 0 or 1). The effects can be attributed to the output often observed in comic books or posters where the increase in contrast accentuates colors. Use to posterize or to maximize color contrast.



▼ INVERSION GROUP

▼ Difference

Calculates the absolute difference between the active and underlying layer(s). When using this blend mode, similar values cancel each other out. Use to find errors in images.

 Difference isn't available in LAB16 mode.



▼ Exclusion

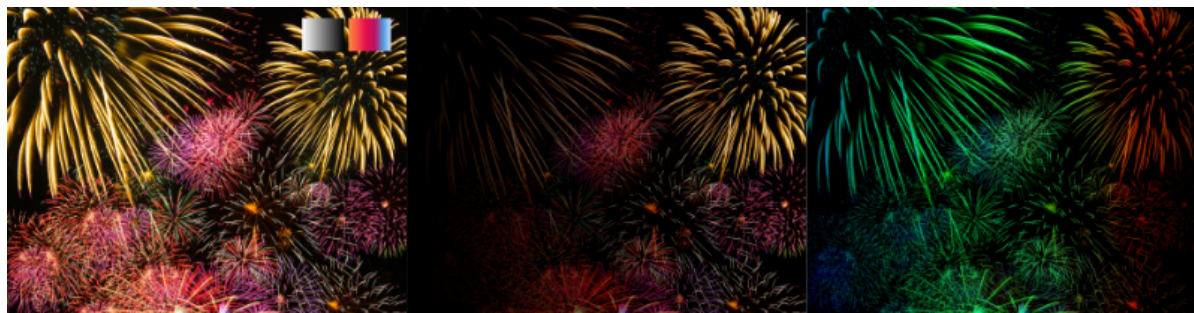
Results in similar output to the above (Difference) mode, however with a softer effect. Use for soft blending of images consisting of similar luminance values.

 Exclusion isn't available in LAB16 mode.



▼ Subtract

Subtracts the top layer's pixel values from the underlying layer, which results in lighter areas becoming brighter whereas the darker areas seeing little to no change. Use to remove or fade the active layer's colors and/or luminosity.



▼ Divide

The underlying layers' pixel values are divided by those of the active layer, which usually results in brighter images. The effect of this blend mode is the opposite of the Subtract mode; darker color values create brighter results while brighter color values see

little to no change. Use to simulate film negative look.

✎ Divide isn't available in LAB16 mode.



▼ COMPONENT GROUP

▼ Hue

Combine the hue of the active layer with that of the underlying layer(s). Use to exaggerate or create intense colors and to produce vivid, often surreal scenes.

✎ Hue isn't available in Grayscale mode.



▼ Saturation

Similar to the Hue blend mode, however here Saturation is the replaced component. Depending on your images' saturation and colors, use this blend mode, as an alternative to the above, and to intensify and exaggerate colors.

✎ Saturation isn't available in Grayscale mode.



▼ Color

Combines the hue and saturation values of the active layer with the brightness of the underlying layer(s). Additionally, only the brightest colors of the underlying layer(s) are retained. Use to stylize images to produce scenes with intensified hue and

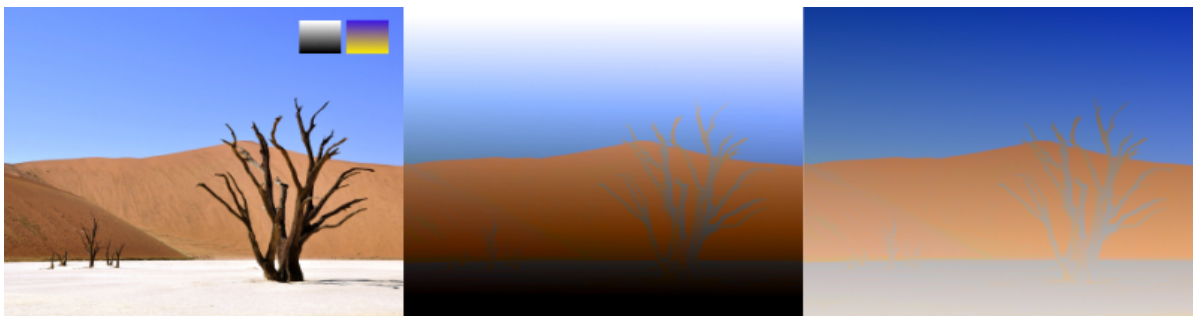
saturation levels.

 Color isn't available in Grayscale mode.



▼ Luminosity

Combines the brightness values of the active layer with the brightness of the underlying layer(s). This blend mode's effect is the opposite of the Color blend mode — it retains the hue and saturation of the underlying layer(s). Use to add detail and textures where color information of the added image layer is less important.



▼ AFFINITY GROUP

▼ Average

Combines the color and luminance values of the active and underlying layer(s) in producing a mean average. The result is similar to the one achieved by setting the active layer's Opacity to 50%. Use to simulate simple double-exposure images.

 Average isn't available in LAB16 mode.



▼ Negation

Similar in effect to the Difference blend mode (Inversion group), which may be used as its alternative. Use to produce more contrasting and intense scenes; particularly powerful when working with selections and masking.

 Negation isn't available in LAB16 mode.



▼ Reflect

Combines the effects of the Hard Light and Hard Mix blend modes (Contrast group) and produces images with preserved darker tones while enhancing the lighter ones. Use as an alternative to control image contrast; the method is particularly useful when combined with manipulating the source layer's graph to reduce highlights output via the Blend Ranges option.

 Reflect isn't available in LAB16 mode.



▼ Glow

The opposite of the Reflect blend mode, which produces images with preserved lighter tones (while enhancing the darker ones). As above, use to manipulate contrast and combine it with the Blend Ranges to obtain best outcomes.

 Glow isn't available in LAB16 mode.



▼ Contrast Negate

Inverts pixel values depending on those of the underlying layer's content versus the active layer. Use to create effects similar to those of a two-tone color grade and posterization.



▼ Erase

Excludes pixels of the underlying layer. Use in combination with layer Opacity to produce faded and transparent outputs or to hide pixels from the layer(s) below the active one.



Erase blend mode set to shapes (from left) at 25%, 50% and 75% Opacity over the base image.

Any layer or object can have a blend mode assigned, including mask and adjustment layers. The default blend mode is 'Normal'—no special compositing is applied. For a group, the default is 'Passthrough'. When set, the group itself has no special blend properties of its own, and passes on the blend mode of its parent layer.

Layer blend modes applied to child layers produce isolated blending which will not affect the parent layer or any other layers in the layer stack.

The same blend modes can be utilized on layer effects and pixel brushes.

'Special 8' blend modes and fill opacity

When adjusting blend opacity, some blend modes (listed below) work best by adjusting **Fill Opacity**, rather than the layer's **Opacity**. The Fill Opacity option is available from the **Layers** panel's **Blend Options** option. Fill opacity is essential when using Hard Mix blending in particular.

- Color Burn
- Linear Burn
- Color Dodge
- Add (Linear Dodge)
- Vivid Light
- Linear Light
- Hard Mix
- Difference

▼ To change the blend mode of a layer (or object):

1. In the **Layers** panel, select a layer (or object).
 2. Choose a blend mode from the pop-up menu on the panel.
-

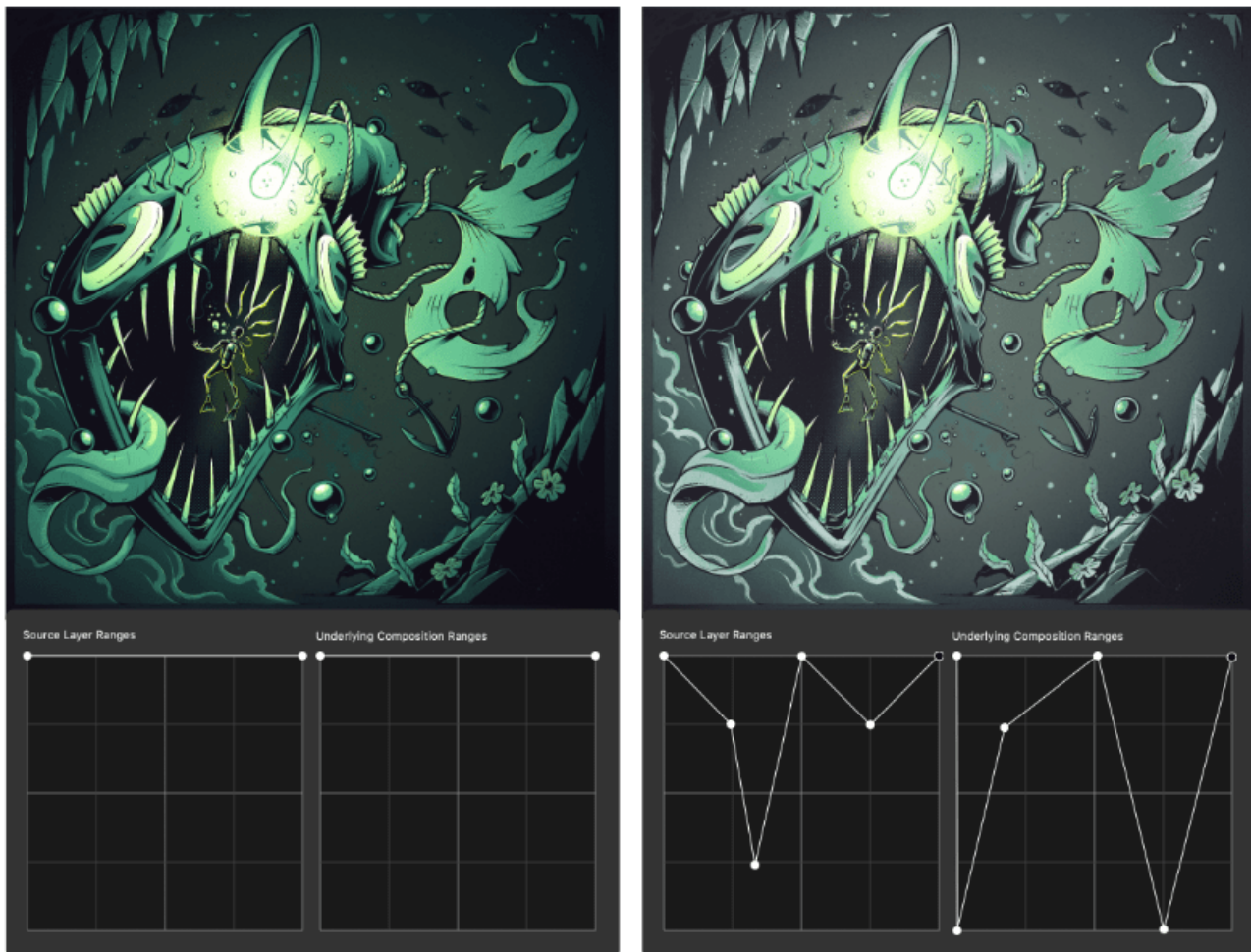
SEE ALSO:[Layer blend ranges](#)[Layer effects](#)[Painting brush strokes](#)

Layer blend ranges

Blending ranges let you blend layers in a project tonally. This is done by controlling the opacity across the tonal range of the currently selected layer and/or the composite layer(s) beneath that layer.

About blend ranges

Blend ranges allow you to specify how tonal values of a layer blend with the layer(s) below. You can set the range of the tonal values affected and can set the range to have any level of opacity (from opaque to transparent).



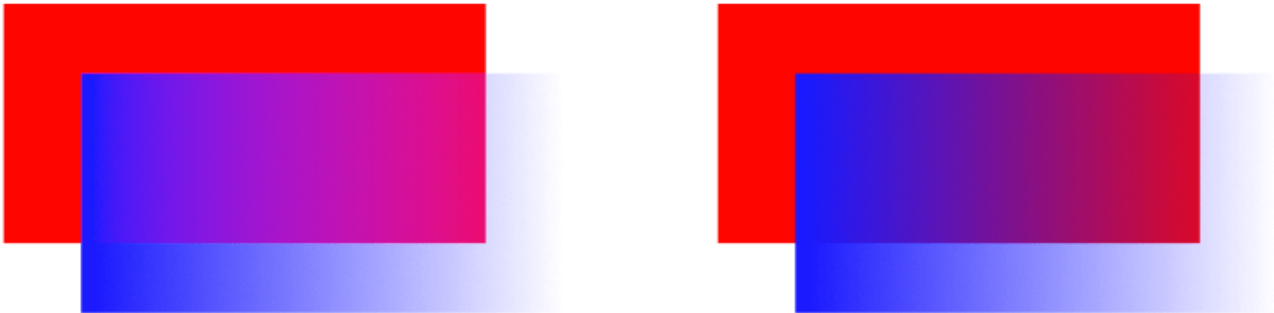
Before and after blend range applied.

The blend range of the selected layer and the underlying layer(s) is controlled in the **Blend Options** dialog.

You can change the blend range for individual color channels within the dialog.

About blend gamma and antialiasing (RGB documents only)

The Blend Options dialog allows you to adjust the blend gamma of the selected layer. This gives you the option of designing using a linear-RGB color space (1.0), regular sRGB-blending (2.2) or any gamma value up to 3.0. In other words, it gives you full control over how the tones of semi-transparent or antialiased edged objects interact with colors underneath.

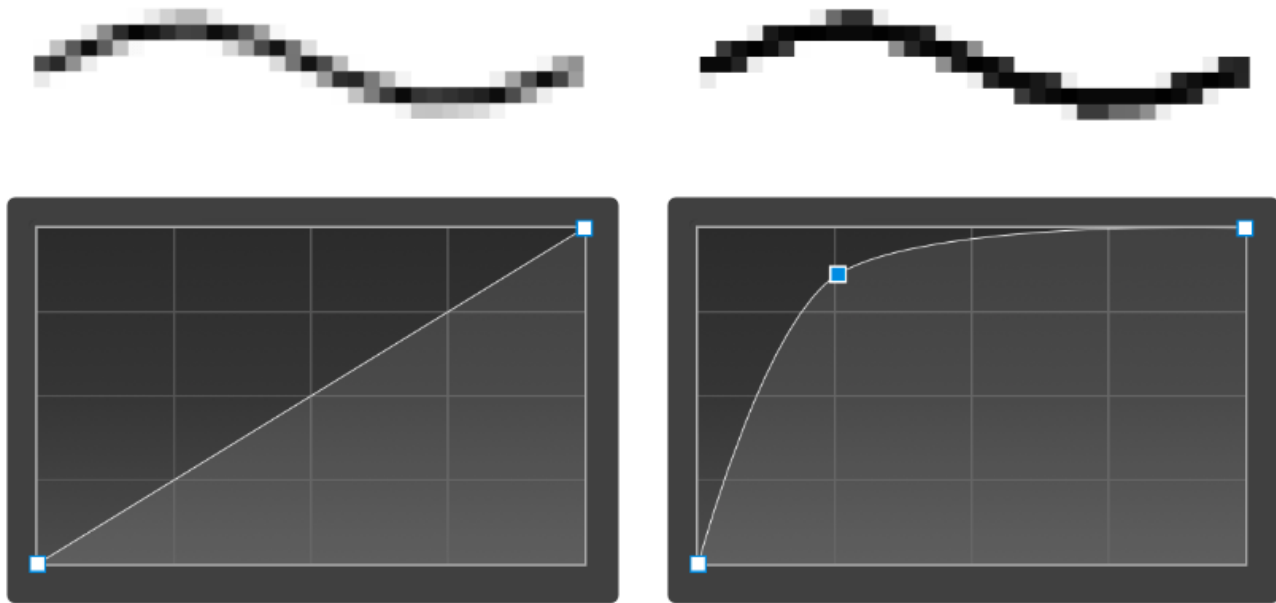


Blue rectangle using linear-RGB (1.0 gamma) and regular sRGB-blending (2.2 gamma), respectively.

 By default, text layers are set to a gamma of 1.45 and all other types of layer to 2.2 (regular sRGB-blending). The former's default settings can be changed in [Settings \(or Preferences\)](#) (Tools option).

Antialiasing is the reduction of the jagged appearance of lines on a pixel grid. Antialiasing is achieved by the addition of semi-transparent pixels along the line to smooth the transition from the line's edge to background objects. This area of transition is sometimes referred to as the **antialiasing ramp** or **antialiasing coverage**.

In the dialog, you can adjust the antialiasing ramp (coverage) of the selected layer, as well as control how (and if) antialiasing is inherited or set independently of other layers. For improved workflow, child layers nested hierarchically in a parent layer can inherit the parent layer's antialiasing setting automatically but can be forced to apply antialiasing or ignore it.



Antialiased line with linear coverage map and custom coverage map, respectively. [Viewed in Pixel mode](#) at 800% zoom.

Settings

The following settings are available in the Blend Options dialog:

- **Blend Gamma**—controls the layer's blend gamma.
- **Antialiasing**—controls antialiasing behavior for the selected layer: **Inherit** (default) adopts antialiasing from any parent layer, while **Force On** and **Force Off** respectively applies or disables antialiasing independently of any other layers.
- **Coverage Map**—controls the layer's antialiasing ramp.
- **Fill Opacity**—alters the opacity of the layer without affecting blending. Use for layers with one of the 'special 8' blend modes applied, especially Hard Mix.
- **Channels**—controls which channel is affected when adjusting the blend range. Select from the pop-up menu.

The following settings can be adjusted for both the **Source Layer Ranges** and the **Underlying Composition Ranges**:

- **Graph**—controls the affected range of pixels and the opacity of pixels within the specified range.
- **In**—sets the horizontal position of the selected node. Type directly in the text box or drag the pop-up slider to set the value.

- **Out**—sets the vertical position of the selected node. Type directly in the text box or drag the pop-up slider to set the value.
- **Linear**—when selected (default), the graduation between two nodes is linear (i.e., nodes on the graph are connected using straight lines). If this option is off, nodes are connected using smooth curves.
- **Reset**—returns the graph to the default position (a straight line between two nodes positioned at the top of the grid).

 When adjusting the graphs in the dialog it is worth noting the following:

- The graphs represent tonal values from darkest on the left to lightest on the right.
- Objects on the selected layer become less visible as nodes on the **Source Layer Ranges** graph are moved downwards.
- Objects on the underlying layer(s) become more visible as nodes on the **Underlying Composition Ranges** graph are moved downwards.

▼ To change blend ranges, blend gamma and antialiasing ramp:

1. On the **Layers** panel, select a layer and then click **Blend Options**.
2. Adjust the settings in the dialog.
3. Close the dialog.

▼ To adjust a graph directly:

Do any of the following:

- Drag a node horizontally to affect more or less pixels.
- Drag a node vertically to affect the visibility of pixels at the tonal value selected.
- Click on the curve to add additional nodes.
- Click to select a node and then press the **Backspace** key to remove it.

▼ To modify the antialiasing ramp:

1. Click the **Coverage Map** thumbnail.
2. From the displayed chart, select a node on the profile's line and drag it vertically or horizontally to a new position.
3. Repeat for other nodes as needed.

 For more complex profiles, click on the profile line to add a node which can be positioned as for any generated node.

 To remove antialiasing, set a straight, horizontal profile line at the top of the chart.

▼ To reset antialiasing ramp to linear:

1. Click the **Coverage Map** thumbnail.
2. From the displayed chart's pop-up dialog, click **Reset**.

▼ To save a coverage map profile:

- Under the chart, click **Save Profile**. The profile shows under the chart.

▼ To apply a custom coverage map profile:

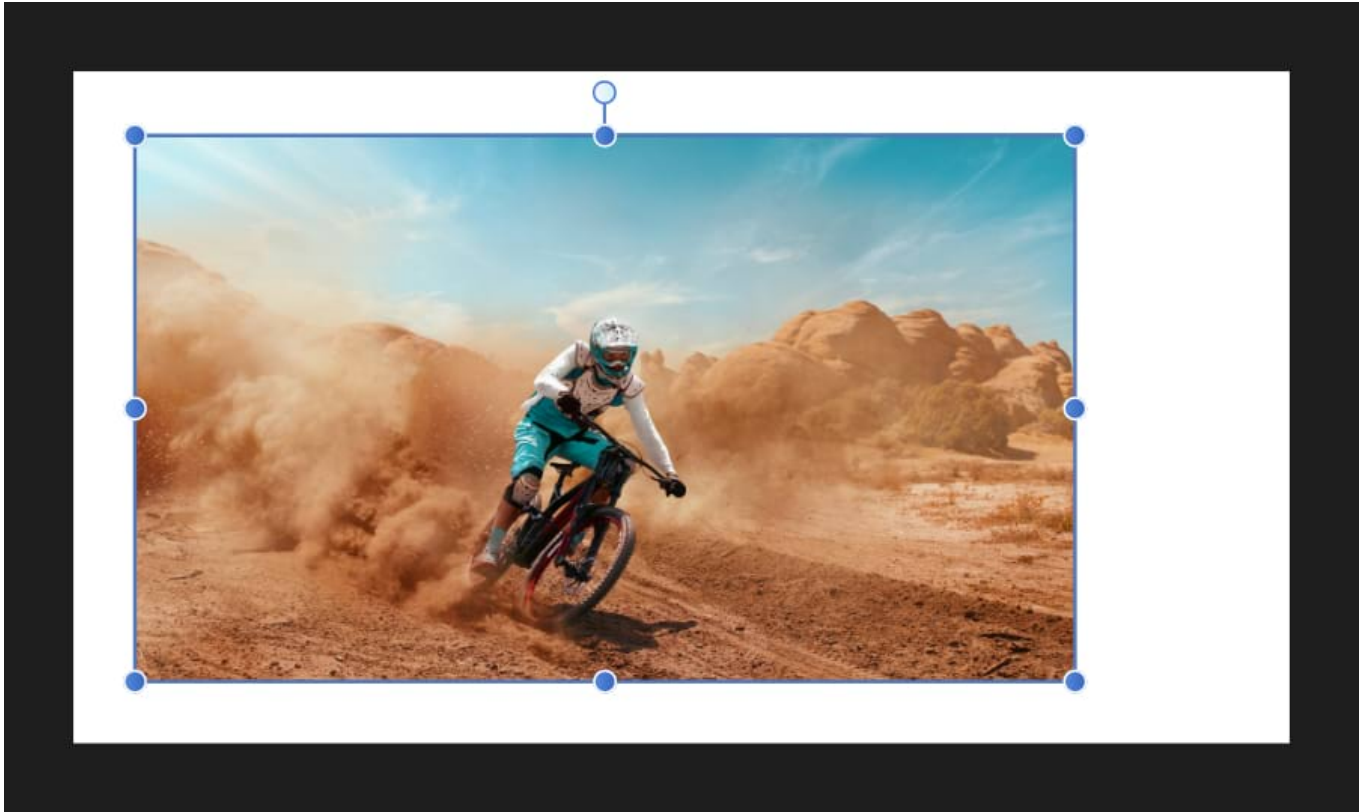
1. Click the **Coverage Map** thumbnail.
2. Select a custom profile thumbnail from below the chart. The chart will update, showing the chosen profile.

SEE ALSO:

[Layer blending](#)

Image layers

Placed images will automatically be added to the **Layers** panel as an image layer. This includes files that are dragged and dropped onto the document, placed via **File>Place**, or by any other placement method.



A placed image.

Image layers retain all of the data from the original image, which remains intact when the document is exported.

An image layer has a container which retains the placed image's original color space, resolution and physical dimensions (when placed at native resolution).

Image layers can be recolored much like an opened image or a pixel layer. If an image layer is drawn on, the layer will be rasterized and will adopt pixel layer properties. Rasterization is required to convert the image to the document's color space.

 Images should be exported using physical print dimensions, e.g. 6in x 4in, and a set DPI when resizing or cropping a document.

▼ To create an image layer by placing content:

1. From the **File** menu, select **Place**.
2. In the pop-up dialog, navigate to and select a file, and click **Open**.
3. Do one of the following:
 - Click to place the file at its default, displayed size.
 - Drag on the page to set the size and position of the content.
4. Alternatively, you can drag and drop the file onto the page to place it. The current image placement policy (embedded or linked) will be honored.

▼ To convert a pixel layer to an image layer:

1. With a pixel layer selected, from the **Edit** menu, select **Copy**.
2. From the **Edit** menu, select **Paste Special**, then choose **Device Independent Bitmap**.

▼ To convert an image layer to a pixel layer:

Do one of the following:

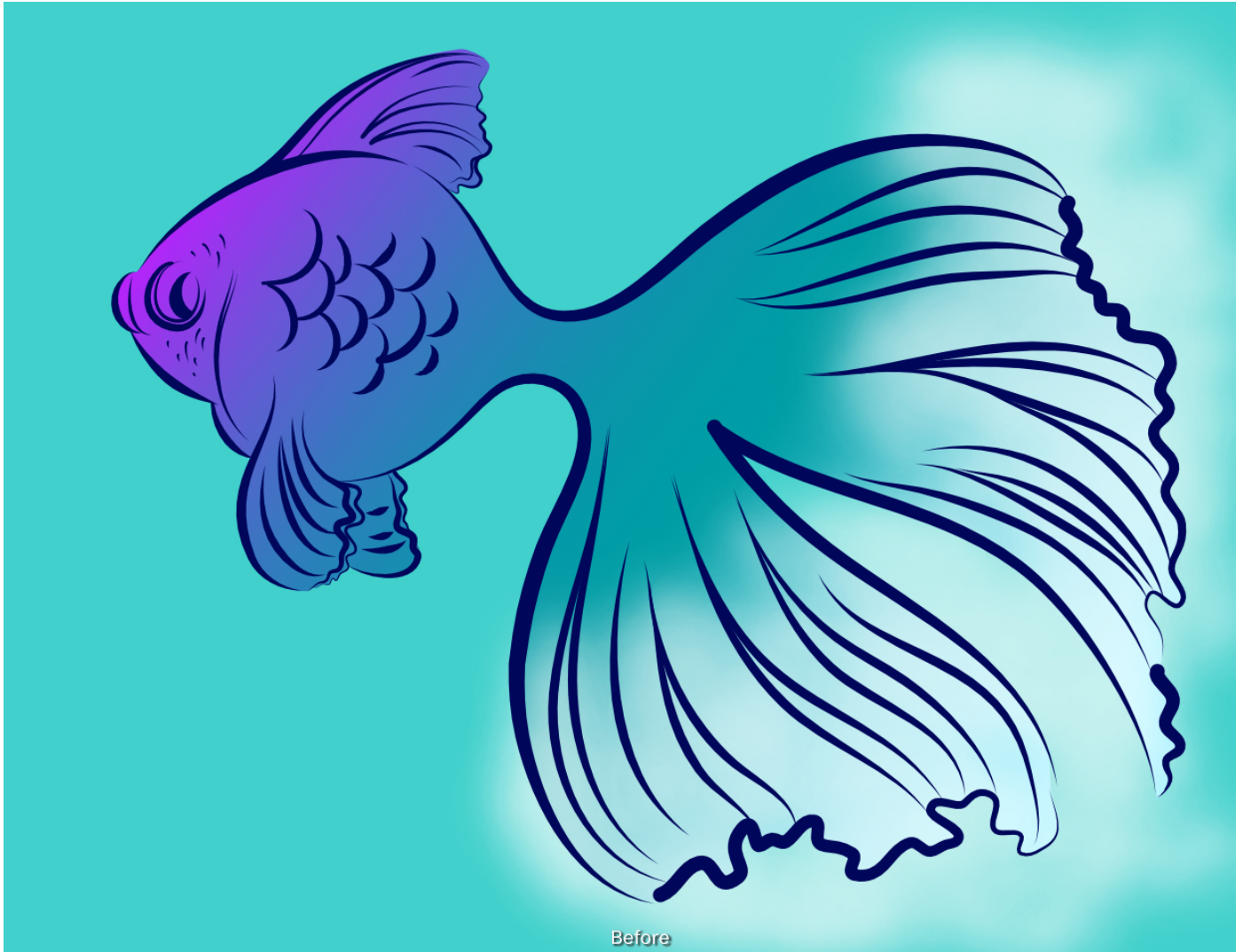
- Select the **Paint Brush Tool** or another brush-based tool and paint on the layer.
- From the **Layer** menu, select **Rasterize**.

SEE ALSO:

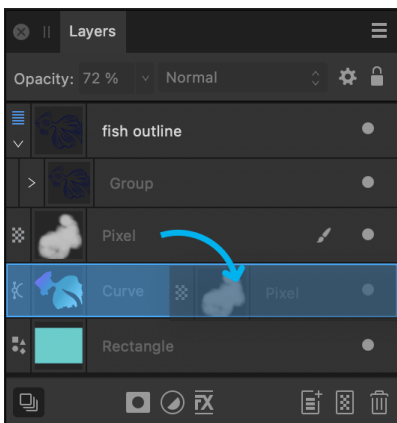
[About layers](#)

Layer clipping

Clipping involves positioning one object inside another. The path of the parent object becomes the new boundaries for the child object. Any areas of the child object which lie outside the parent object's path are masked (hidden).



Pixel brush strokes clipped within the fish's vector outline.



Layers panel showing white brush stroke layer being dragged onto the fish's outline layer (above).

About clipping

Any object can act as a parent or child in clipping relationships. Both vector objects and pixel layer content can be either clipped or clipping objects. In Affinity Designer, it is popular to clip pixel brush textures to a vector object's outline (see example above).

When scaling a parent object, child (clipped) objects scale to maintain the correct aspect ratio. Scaling a clipped object has no effect on the parent object. A clipped object can be edited independently from its parent, e.g. adjusting color, opacity, and/or blend mode.

 Objects can be clipped on creation by drawing directly inside a selected object. This is controlled by **Insert inside the selection** object targeting. For more information, see the [Targeting objects](#) topic.

▼ To clip objects:

1. On the page, position the object to be clipped so it overlaps the object which will perform the clipping.
2. Do one of the following, with the object to be clipped being selected:
 - On the **Layers** panel, drag it on top of the object which is to perform the clipping. A blue highlight appears to target the layer.
 - On the **Layer** menu, select **Arrange>Move Inside**. This moves the object inside the object above it on the **Layers** panel.

The clipped object is nested within the clipping object in the Layers panel. The clipped object has become a child of the clipping object.

▼ To unclip an object:

Do one of the following:

- On the **Layers** panel, drag the clipped object from inside the parent object to a layer.
- Select the clipped object, then select **Layer>Arrange>Move Outside**.

▼ To resize an object without scaling its child layer content:

- Select the parent object with the **Move Tool**, and then check **Lock Children** on the context toolbar. Resize the parent object to your chosen size.

 As you resize the parent, you can press the **Spacebar** key to temporarily override the current Lock Children state while the key remains pressed.

SEE ALSO:

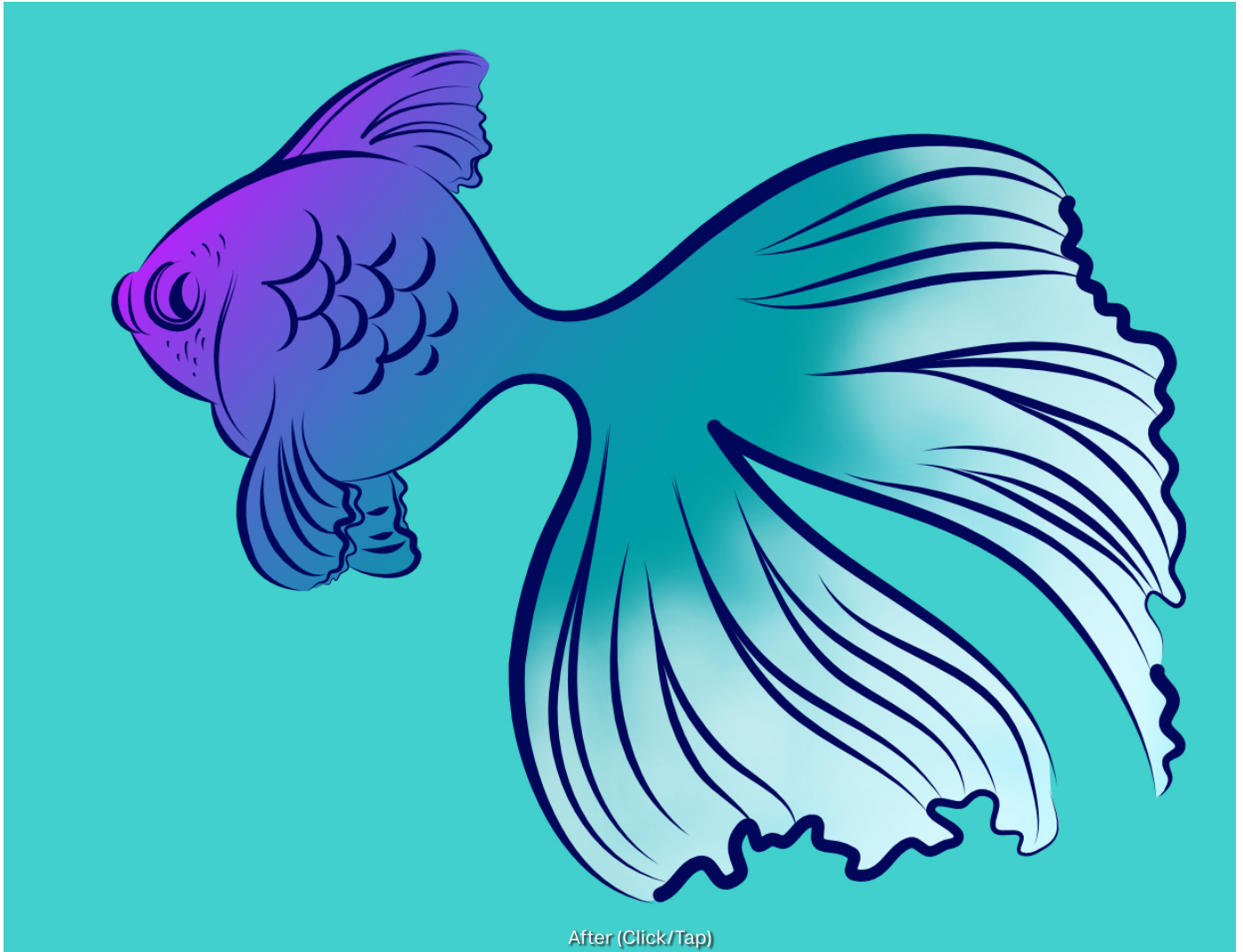
[Targeting objects](#)

[Layers panel](#)

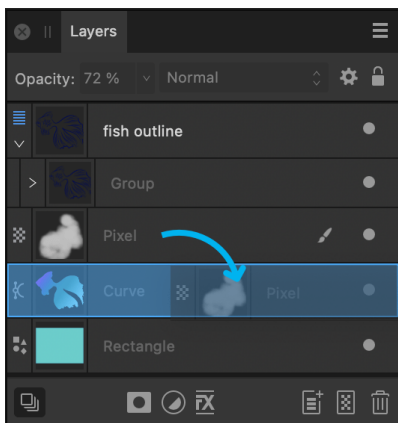
[Layer blending](#)

Layer clipping

Clipping involves positioning one object inside another. The path of the parent object becomes the new boundaries for the child object. Any areas of the child object which lie outside the parent object's path are masked (hidden).



Pixel brush strokes clipped within the fish's vector outline.



Layers panel showing white brush stroke layer being dragged onto the fish's outline layer (above).

About clipping

Layer masking

A layer mask is used to reveal a portion of a layer while the rest of the layer remains hidden. This means that you can use a mask layer to 'delete' areas of a layer that you don't want.

In Affinity Designer, two types of masking are possible: pixel masking and vector masking.



Pixel masking: performs a similar task to the erase tools with one important difference; a pixel mask can be modified, or even discarded, at any point in time.



Vector masking: this involves using a line or shape as a mask over another object that crops to the line or shape's outline.

The non-destructive power of masking

Masks are applied to designs as a separate layer, allowing them to be freely edited and moved. Mask layers affect any object below them within the same parent layer. They can also be [clipped](#) to individual objects so that only that object is affected.

[Adjustment layers](#) also have mask layer properties. Areas of an adjustment layer can be revealed or hidden in the same way as with a mask layer.

Once a mask layer is created, you can apply different levels of grayscale or opacity to the mask layer—apply White (or 100% Opacity) to reveal; apply Black (or 0% Opacity) to conceal; apply intermediate grayscale levels for partial masking. Try drawing a gradient (with Gradient Tool) across a mask layer and assign different grayscale levels or opacity to end stops to experiment.

Mask layers can have a unique [blend mode](#) assigned.

  Layer FX take no effect on mask layers.

Filling and clearing masks

In addition to using brushes to either reveal or conceal the effects of an adjustment, filter and/or color effects on a mask, the **Clear Mask** and **Fill Mask** options enable fast and easy approach to amend the edits.

▼ To Clear or Fill a mask:

1. Select a mask layer.
2. Add an effect or an adjustment, as required.

3. On the **Layers** panel, **⌘**-click (Mac) / **Right-click** (Windows) the mask icon to access the option.

▼ **To add a pixel mask to a vector layer:**

1. On the **Layers** panel, select the chosen vector layer.
2. Jump to Pixel Persona.
3. Do one of the following:
 - To 'erase', paint on the page using the **Erase Brush Tool**. A mask layer is created on painting.
 - To 'restore' the mask, paint on the page using the **Paint Brush Tool**. A white fill completely restores, while grayscale fills partially restore the mask by varying amounts.

 Selecting a pixel mask's thumbnail automatically switches the **Color** panel to **Grayscale** mode.

 The Erase Brush Tool always erases using 100% black (ignoring the current fill swatch).

▼ **To create an empty mask layer:**

1. On the **Layers** panel, select the layer you wish to mask.
2. Hold **Alt** key and, at the bottom of the panel, click the mask icon.

 By default, a created mask layer is applied to the current layer, but it can be moved by dragging outside the current layer, applying the mask to all layers below. Alternatively, the mask can be moved onto an object, applying the mask just to that object.

▼ **To edit a pixel mask:**

1. In the **Layers** panel, select the mask thumbnail representing the mask layer.
2. Paint using the above tools.

 Note the **Gradient Tool** is found in the Designer Persona.

▼ **To change pixel mask properties:**

- As you erase on the pixel mask, adjust Width, Opacity, Flow and Hardness from the Erase Brush Tool's context toolbar.

▼ **To add a vector mask:**

1. Draw a filled vector object, e.g., a line or shape, which is to be your mask.
2. Do one of the following:
 - On the **Layers** panel, drag the created object entry directly onto the thumbnail of a 'target' object.
 - **Right-click** the object and select **Mask to Below**, if the object to be masked is directly below the masking object.
 - On the **Layer** menu, select **Mask to Below**.

The thumbnail of the target object changes to indicate that a mask and crop have been applied.

The masking object is clipped to the target object using a "crop to top object" operation.

The masking object can be a group of objects which will remain as independent objects after masking; the group can be expanded/collapsed and its objects will remain editable.

 Vector masks can be used layer to layer, layer to object, object to layer, or object to object (as above).

▼ To hide/show a collapsed child mask layer:

- **Shift**-click on the mask thumbnail when collapsed to its parent layer.

The hidden mask will show a red line through its thumbnail.

▼ To delete a mask:

1. In the **Layers** panel, select the mask's thumbnail.
 2. Press the **Backspace** key.
-

SEE ALSO:

[Using adjustment layers](#)

[Layer clipping](#)

Layer masking

A layer mask is used to reveal a portion of a layer while the rest of the layer remains hidden. This means that you can use a mask layer to 'delete' areas of a layer that you don't want.

In Affinity Designer, two types of masking are possible: pixel masking and vector masking.



Pixel masking: performs a similar task to the erase tools with one important difference; a pixel mask can be modified, or even discarded, at any point in time.



After (Click/Tap)

Vector masking: this involves using a line or shape as a mask over another object that crops to the line or shape's outline.

The non-destructive power of masking

Masks are applied to designs as a separate layer, allowing them to be freely edited and moved. Mask layers affect any object below them within the same parent layer. They can also be [clipped](#) to individual objects so that only that object is affected.

[Adjustment layers](#) also have mask layer properties. Areas of an adjustment layer can be revealed or hidden in the same way as with a mask layer.

Once a mask layer is created, you can apply different levels of grayscale or opacity to the mask layer—apply White (or 100% Opacity) to reveal; apply Black (or 0% Opacity) to conceal; apply intermediate grayscale levels for partial masking. Try drawing a gradient (with Gradient Tool) across a mask layer and assign different grayscale levels or opacity to end stops to experiment.

Mask layers can have a unique [blend mode](#) assigned.

  Layer FX take no effect on mask layers.

Filling and clearing masks

In addition to using brushes to either reveal or conceal the effects of an adjustment, filter and/or color effects on a mask, the **Clear Mask** and **Fill Mask** options enable fast and easy approach to amend the edits.

▼ To Clear or Fill a mask:

1. Select a mask layer.
2. Add an effect or an adjustment, as required.

Using adjustment layers

Use adjustment layers to apply an adjustment to your vector/pixel layer (or object). This is carried out non-destructively (i.e., without permanently affecting the original layer or object).



Before

Adjustment layer applied to an image.

About adjustment layers

Adjustments are applied from the **Layers** panel and most include customizable settings alongside general adjustment options. Once applied, they can be identified as both an adjustment and a specific adjustment type by using unique symbols.

Adjustments can be symbolized, i.e. their settings can be updated across multiple instances of the adjustment layer at the same time.



Curves adjustment layer indicating it is an adjustment (A) and a Curves adjustment type (B).

▼ Available adjustments:

-  Black & White
-  Brightness / Contrast
-  Channel Mixer
-  Color Balance
-  Curves
-  Exposure
-  Gradient Map
-  HSL
-  Invert
-  Lens Filter
-  Levels
-  LUT
-  OCIO (OpenColorIO)
-  Posterize
-  Recolor
-  Selective Color
-  Shadows / Highlights
-  Soft Proof
-  Split Toning
-  Threshold
-  Vibrance
-  White Balance

When an item is selected, the adjustment layer is applied to just that item, i.e. it is **clipped**. With no selection in place, the adjustment is applied to the entire spread.

Adjustment layers also have mask layer properties. Areas of an adjustment layer can be revealed or hidden in the same way as with a mask layer.

 If you have a **pixel selection** in place when you add an adjustment layer, the area selected is automatically masked. If you have a vector object selected, then the adjustment layer is created as a child of the object layer. This behavior can be changed in Assistant Settings.

 Adjustment layers can have a unique **blend mode** assigned.

▼ To apply an adjustment:

1. On the **Layers** panel, do one of the following:
 - Select a layer to add the adjustment as a child of the layer. It will affect all objects on the selected layer.
 - Select an object, group or image to add the adjustment to the item, affecting just that item only.
 - Deselect all items to add the adjustment at the top of the layer stack, applying the adjustment to all items below it (the entire spread).
2. Click **Adjustments** and select an adjustment from the pop-up menu.
3. If a dialog appears for the adjustment, follow the steps below:
 - i. Adjust the settings in the dialog.
 - ii. Click **Close**.

▼ To modify, merge or delete an adjustment layer:

1. In the **Layers** panel, double-click the adjustment layer that you want to modify.
2. Adjust the settings in the dialog.
3. Click **Close** to apply the changes, **Merge** to apply the changes and merge the adjustment with the layer beneath, or **Delete** to remove the adjustment layer entirely.

▼ To move an adjustment layer:

Do one of the following:

- Drag the adjustment to the top of the **Layers** panel so it affects all layers below it.

- Drag the adjustment above or below objects within a layer to affect more or fewer objects on the layer.
- Drag the adjustment onto an object to make it a child of that object and confine the affect of the adjustment to that object only.

▼ To mask an adjustment layer:

1. In the **Layers** panel, select the Adjustment layer.
2. Do any of the following:
 - To 'erase' from the mask, paint with the **Erase Brush Tool**.
 - To 'restore' the mask, select the **Paint Brush Tool** and paint.

SEE ALSO:

[Applying adjustments](#)

[Layer masking](#)

[Creating pixel selections](#)

[Assistant Settings](#)

Using adjustment layers

Use adjustment layers to apply an adjustment to your vector/pixel layer (or object). This is carried out non-destructively (i.e., without permanently affecting the original layer or object).



After (Click/Tap)

Adjustment layer applied to an image.

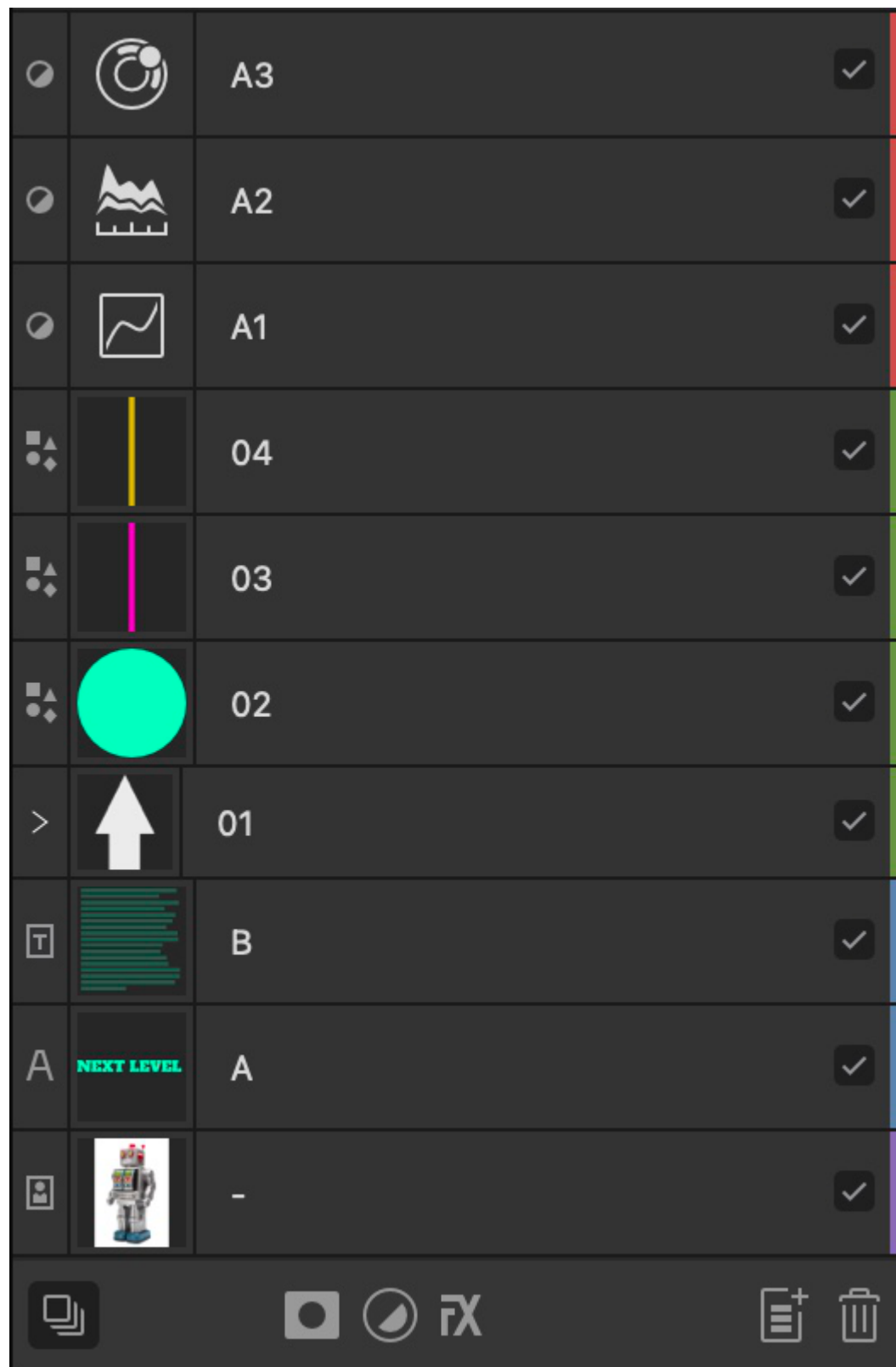
About adjustment layers

Adjustments are applied from the **Layers** panel and most include customizable settings alongside general adjustment options. Once applied, they can be identified as both an adjustment and a specific adjustment type by using unique symbols.

Adjustments can be symbolized, i.e. their settings can be updated across multiple instances of the adjustment layer at the same time.

Tagging layers

Layers can be tagged with a color to help differentiate specific layer content in the Layers panel.



Layers showing color tagging as vertical colored strips at the end of each entry.

Tagging provides a useful additional means of organizing layer content beyond grouping layers, as it allows you to organize a set of layers without affecting the layer order. All layers that share the same tag color can be [selected at once](#) from the **Layers** panel or **Select** menu.

▼ To assign a tag color to a layer(s):

1. (Optional) On the **Layers** panel, select multiple layers.
2. Do one of the following:
 -  **Right-click Toggle Visibility**, and select a color tag from the pop-up menu. For multiple selected layers, any of the selected layers can be targeted.
 - **Right-click** a layer and select a color swatch from the pop-up menu.

 When you assign a tag color to a layer group, it is also applied to layers within the group *except* any that have a color tag already.

▼ To remove a tag color:

- With a layer (or multiple layers) selected, on the **Layers** panel, **Right-click** and choose the first color swatch (white with a red line through it). Tag colors are removed from the entire selection.

 When you remove a tag color from a layer group, it is also removed from any layers of the same color within the group.

SEE ALSO:

[Selecting and editing layers](#)

[Layers panel](#)

[Selecting](#)

Layer colors

Use layer colors to change the UI display color of all object's path, nodes and handles within a chosen layer.



Different layer colors showing on the bounding boxes of objects (the panel's layer icon also shows the layer color).

About layer colors

Objects drawn outside of layers will adopt a default blue wireframe path, nodes and handles. For any layer you create, it will be assigned the same default blue color but you can assign a different color to the layer at any time. This means that any tool you use while drawing new objects or editing objects in that layer will adopt the current layer color.

 This isn't the object's fill or stroke but the path, node or handle color that shows only on object selection.

For reference, the layer color is used to color the layer type icon for the layer entry in the **Layers** panel.

Use layer colors to either help visually identify which layer you're working on or to help distinguish an object's path, nodes and handles from low color-contrast surroundings. For the latter, if you're drawing something blue (for example), the default layer color of blue would mean that your object's path, nodes or handles could be hard to see, so choosing a different layer color, e.g. orange, would improve UI visibility when you worked with objects on that layer.

 Layer tagging differs from using layer colors as tagging involves visually identifying layers by color in the **Layers** panel to show those layers are related in some way.

▼ To assign a layer color to a specific layer:

1. On the **Layers** panel, **Right-click** a chosen layer and select **Properties**.
2. Click the swatch and select a color from the pop-up menu.



Live Mesh Warp

The Live Mesh Warp layer can be used to distort specific areas of an image without affecting other regions.



Warping an image to fit a design.

About Live Mesh Warp

This filter is applied on its own layer as a non-destructive, live filter. It can be accessed from the Pixel Persona via **Layer>New Live Filter Layer**. Warps created using this filter will be pixel-based.

For vector-based warps, use the **Warp Group** functionality in the Designer Persona. See [Warping objects](#) for more information.

Settings:

The following settings can be adjusted from the context toolbar:

- **Destination/Source**—mode option to manipulate just the grid (Source) or both grid and the object simultaneously (Destination).
 - **Synchronize**—makes the destination mesh match the source mesh.
 - **Reset**—restores the grid to a uniform rectangular shape. Nodes which have been added are distributed evenly across the grid.
 - **Hide Mesh/Show Mesh**—hides and shows the grid and the nodes.
 - **Convert**—switches the selected node to **Sharp** or **Smooth**.
-

SEE ALSO:

[Warping objects](#)

[Transforming objects](#)



Live Mesh Warp

The Live Mesh Warp layer can be used to distort specific areas of an image without affecting other regions.



After (Click/Tap)

Warping an image to fit a design.

About Live Mesh Warp

This filter is applied on its own layer as a non-destructive, live filter. It can be accessed from the Pixel Persona via **Layer>New Live Filter Layer**. Warps created using this filter will be pixel-based.

For vector-based warps, use the **Warp Group** functionality in the Designer Persona. See [Warping objects](#) for more information.

Settings:

The following settings can be adjusted from the context toolbar:

- **Destination/Source**—mode option to manipulate just the grid (Source) or both grid and the object simultaneously (Destination).
 - **Synchronize**—makes the destination mesh match the source mesh.
 - **Reset**—restores the grid to a uniform rectangular shape. Nodes which have been added are distributed evenly across the grid.
 - **Hide Mesh/Show Mesh**—hides and shows the grid and the nodes.
 - **Convert**—switches the selected node to **Sharp** or **Smooth**.
-

SEE ALSO:

[Warping objects](#)

[Transforming objects](#)

Live Perspective

The Perspective filter can be used to manipulate compositions to achieve surreal results or to apply creative effects that change the viewers' perception of a piece: creating mock up designs, for example.



Using the Perspective filter in a mock up design.

About Live Perspective

The Perspective filter can be adjusted in single plane mode as a non-destructive, live filter. It can be accessed from the Pixel Persona via **Layer>New Live Filter Layer**.

Any adjustments to perspective created using this filter will be pixel-based. For vector-based warps use the **Warp Group** functionality in the Designer Persona. See [Warping objects](#) for more information.

Settings

The following settings can be adjusted from the dialog:

- **Preserve Alpha**—when enabled, object edges are not subject to perspective transformation.
 - **Merge**—merges the current perspective transformation with the layer immediately below it in the layer order.
 - **Delete**—removes the live perspective filter and its layer.
 - **Reset**—restores the operation and its options to a starting point.
 - **Mode**—an option to manipulate just the grid (Source) or both grid and the object simultaneously (Destination).
 - **Show Grid**—hides/shows the grid.
 -  **Rotate Clockwise**—rotates the selected object(s) to the right by one 90° increment.
 -  **Rotate Anti-clockwise**—rotates the selected object(s) to the left by one 90° increment.
-

SEE ALSO:

[Warping objects](#)

[Transforming objects](#)

Live Perspective

The Perspective filter can be used to manipulate compositions to achieve surreal results or to apply creative effects that change the viewers' perception of a piece: creating mock up designs, for example.



Using the Perspective filter in a mock up design.

About Live Perspective

The Perspective filter can be adjusted in single plane mode as a non-destructive, live filter. It can be accessed from the Pixel Persona via **Layer>New Live Filter Layer**.

Any adjustments to perspective created using this filter will be pixel-based. For vector-based warps use the **Warp Group** functionality in the Designer Persona. See [Warping objects](#) for more information.

Settings

The following settings can be adjusted from the dialog:

- **Preserve Alpha**—when enabled, object edges are not subject to perspective transformation.
 - **Merge**—merges the current perspective transformation with the layer immediately below it in the layer order.
 - **Delete**—removes the live perspective filter and its layer.
 - **Reset**—restores the operation and its options to a starting point.
 - **Mode**—an option to manipulate just the grid (Source) or both grid and the object simultaneously (Destination).
 - **Show Grid**—hides/shows the grid.
 -  **Rotate Clockwise**—rotates the selected object(s) to the right by one 90° increment.
 -  **Rotate Anti-clockwise**—rotates the selected object(s) to the left by one 90° increment.
-

SEE ALSO:

[Warping objects](#)

[Transforming objects](#)